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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,117	04/12/2004	Jai Subramanian	H0001862(4015)-div1	3520
21567	7590	09/09/2004	EXAMINER	
WELLS ST. JOHN P.S. 601 W. FIRST AVENUE, SUITE 1300 SPOKANE, WA 99201			HARRIS, ANTON B	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No. 10/823,117	Applicant(s) SUBRAMANIAN, JAI	
	Examiner Anton B Harris	Art Unit 2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-56 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>12 April 2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 51-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshida (6,271,058) in view of Ohgiyama (6,309,909) and Toy et al. (5,956,576).

Regarding claim 51, Yoshida (col. 5, lines 3-67) discloses a method of forming a plurality of microelectronic lids comprising:

forming a lid 1 stock material into a shape of a bar (figure 1) having a side, and a groove (figure 16) extending along the side; and

wherein the lid 1 stock material comprises aluminum or copper (col. 7 line 20), but lacks cutting the bar into a plurality of separated microelectronic lids, and electroplating the microelectronic lids with nickel.

Ohgiyama (figure 9b) teaches cutting the bar into a plurality of separated microelectronic lids 30a.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Yoshida by cutting the bar into a plurality of separated microelectronic lids in order to provide covers for individual devices in view of the teachings of Ohgiyama.

Toy et al. (figure 9b) teaches electroplating the microelectronic lids 10 with nickel 64.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Yoshida by electroplating the microelectronic lids with nickel in order to improve electrical conductivity in view of the teachings of Toy et al.

Regarding claim 52, Yoshida (col. 5, lines 3-67) discloses a method of forming the lid 1 stock material into the shape by extruding the lid 1 stock material into the shape.

Regarding claim 53, Yoshida (col. 5, lines 3-67) discloses a method of forming the lid 1 stock material into the shape by providing a bar of the lid 1 stock material that lacks the groove (figure 16) in the side; and machining the groove (figure 16) into the side of the bar.

Regarding claim 54, Yoshida (col. 5, lines 3-67) discloses a method of providing a lid 1 stock material that comprises aluminum (col. 7 line 20).

Regarding claim 55, Yoshida (col. 5, lines 3-67) discloses a method of providing a lid 1 stock material that comprises copper (col. 7 line 20).

Regarding claim 56, Yoshida (col. 5, lines 3-67) discloses a method of incorporating at least one of the microelectronic lids 1 into a microelectronic package (figure 3), the incorporating comprising providing a chip 4 supported by a base 5; and adhering the microelectronic lid 1 to the base 5 and over the chip 4; the chip 4 accordingly being packaged between the microelectronic lid 1 and the base 5.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Art Unit: 2831

Sherif et al. U.S. Patent No. 6,222,263 B1 discloses a chip assembly including a lid, a base, thermally conductive material, and a chip.


Daves et al. U.S. Patent No. 6,222,263 B1 discloses a chip package including a lid, a base, thermally conductive material, and a chip.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anton B Harris whose telephone number is (571) 272-1976. The examiner can normally be reached on weekdays from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Dean Reichard, can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

abh

9/4/04

 9/7/04
DEAN A. REICHARD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800